Introduction

Study Background

Over the last several years, EPA's senior management has been concerned about the Agency's inability to fund all of the Superfund long term cleanups that are otherwise ready to proceed. While Superfund has become a mature program, it continues to have very high resource demands, as sites added to the National Priorities List (NPL) more than a decade ago have reached the most costly phase of the program: long term cleanup or remedial actions.

In 1999, at the direction of Congress, EPA contracted with Resources for the Future (RFF) to conduct a study and prepare a report that predicted, at current funding levels, Superfund would soon face response funding shortfalls of $100–$300 million annually for the next several years, with a cumulative funding shortfall in excess of $1 billion. The report predicted the annual shortfall might last until only 2007 or could extend well beyond 2009.[1] Subsequent to the RFF report, members of Congress requested that the Inspector General provide a report on the program's funding shortfall. For FY 2003, the EPA Inspector General reported a site-specific funding shortfall of almost $175 million.

In July 2001, the EPA Deputy Administrator directed the development of an action plan to address the recommendations in the RFF report. The primary recommendations from the report were the following: (1) review and clarify the purpose of the NPL; (2) assess the level of program management, policy, and administrative support resources needed to implement the Superfund program; (3) improve the management of and financial systems for tracking Superfund progress and costs; and (4) give higher priority to post-construction activities.

Specifically, the plan called for the creation of a Superfund Subcommittee under the auspices of the Agency's National Advisory Council for Environmental Policy and Technology (NACEPT). The overall intent of the Subcommittee's work was to assist in identifying the future direction of the Superfund program in the context of other federal and state waste and cleanup programs that have developed since Superfund was enacted. The NACEPT Superfund Subcommittee has been focusing in particular on: (1) the role of the NPL in hazardous site response; (2) the unique needs of mega sites, which RFF defined as sites costing $50 million or more; and (3) measures of success for Superfund.

---

[1] Katherine N. Probst and David M. Konisky, *Superfund's Future: What Will It Cost?* (Resources for the Future, 2001), p. 159.

In November 2003, to complement NACEPT's work, Acting Deputy Administrator Stephen L. Johnson commissioned this internal Superfund study. As envisioned, the study would be a brief (approximately 120-day) Agency self-assessment of Superfund resource use and management issues. The main objective of this review was to identify opportunities for program efficiencies that would enable the Agency to complete more long term cleanups with current resources. The Acting Deputy Administrator directed that the study be conducted by a team of individuals with Superfund knowledge and experience but not all currently in the program, thereby providing both expertise for the study and a degree of independence and objectivity.

When the House and Senate acted on the Agency's FY 2004 appropriation, the House directed the EPA Inspector General to evaluate Superfund expenditures in EPA headquarters and the regions and to recommend options for increasing resources directed to cleanup while minimizing administrative costs. The Senate Appropriations Committee, in its FY 2004 report, noted that the Agency was spending only 16 percent of the annual appropriation on site construction and long-term response actions, and directed the Agency to direct no less than 22 percent of the annual appropriation to site construction. This report also directed the Inspector General to conduct a comprehensive audit of FY 2002 and 2003 Superfund expenditures.

When the Conference Committee completed its work on the Agency's FY 2004 budget, it did not direct the Agency to target a specific percentage of funding to site construction. However, the final language did direct the Inspector General to conduct an evaluation of the Superfund program. The Office of Inspector General's final report is due to both Appropriations Committees in December 2004.

Information on Past Studies

The 120-day study has benefited from a number of previous reviews of the Superfund program. In the last decade alone, over a dozen studies have been conducted by EPA staff, other government agencies, and outside organizations. This 120 day study was preceded by a 90 day study in 1989 and a 30 day study in 1991. In 1994, EPA conducted a "base review," which outlined an investment and disinvestment strategy for redirecting resources into priority areas. More recently, EPA's Office of Solid Waste and Emergency Response (OSWER) commissioned an evaluation of the U.S. Army Corps of Engineer's (Corps) support of the Superfund program. This 2003 study presented eight recommendations for improving how EPA and the Corps work together on Superfund cleanups.

A majority of the outside reviews of the program have been initiated by Congress. Members of Congress have frequently asked the General Accounting Office (GAO) to examine specific aspects of the Superfund program. For example, GAO has reviewed, through separate studies, EPA's progress toward recovering unspent Superfund contract monies, efforts to monitor Superfund expenditures, success in implementing prior administrative reforms, and use of performance measures. EPA's Office of the Inspector General has also devoted significant time to reviewing the Superfund program. Most

recently, as noted above, the Office of the Inspector General looked at the sufficiency of funding for long term cleanup at nonfederal sites.

The above-mentioned RFF study, *Superfund's Future: What Will It Cost?*, is one of the larger and better-known evaluations of the Superfund program. Funded by EPA at the direction of Congress, the RFF study examined the future costs of various aspects of the Superfund program, including the costs of cleaning up sites, particularly megasites, implementing long-term response actions, and administering the program.

Study Methodology

The Study Team collected information from the major data systems, analyzed this data and identified needed follow-up, and interviewed Superfund program managers in headquarters and the Regions. Interviews with selected outside experts who have or had high-level involvement in the Superfund program added to the study's knowledge base. The over 50 individual interviews conducted by the study team included current and former EPA employees, private industry managers and legal counsel who represent the PRP community, current and former state environmental directors, Superfund researchers, Department of Justice attorneys, and managers and examiners from the Office of Management and Budget. Within the Agency, the team has spoken with numerous people at every level of the offices involved with Superfund, including OSWER, the Office of Enforcement and Compliance Assurance, the Office of the Chief Financial Officer, the Office of Administration and Resources Management, and the Office of Research and Development.

Individuals from the study team visited eight of the ten regions to interview Superfund Division Directors and their program staffs, policy and management divisions, laboratory managers, enforcement and cost recovery staffs, and Regional Counsels. For those Regions the Study Team did not visit, the team interviewed Deputy Regional Administrators during their trips to Washington, D.C., and held phone interviews with the Division Directors along with any staff they wished to have present. To supplement the information gathered in the interviews, the study team prepared and sent out tailored questionnaires to gather program-specific information.

While the study's primary focus was on resource and financial management, in the course of interviewing such a broad array of Superfund experts within and outside EPA, a wide range of ideas and recommendations emerged. The study's conclusions, while maintaining an eye toward resource issues, reflect the broadened scope of the interviews, in particular suggesting opportunities for enhancing program effectiveness.

What This Study Is Not

Although the study team spoke to a large number of people and gathered a great deal of data in a very short time, this study is not a comprehensive audit, nor is it a formal program evaluation. It is also not the independent contract review currently being contemplated by NACEPT as a recommendation in its report. Many of the findings,

recommendations, and options presented in this study are suggested by the data, the interviews, and the study team's analysis of this information. Given the short duration of the study, in some cases the Study Team has recommended additional analysis by Headquarters and the Regions prior to implementing certain recommendations.

The study team fully expects that some of the themes and issues identified in this report will be analyzed in the evaluation being conducted by the Office of the Inspector General. While the study team heard a number of far-reaching suggestions, the report's recommendations mainly stay within the existing authorities and organization.

Study Findings

The Study Team found that this is a complex, viable cleanup program with an effective strong enforcement component. It also found that the program has improved how it measures its progress and how it communicates it accomplishments and environmental results. However, as with all environmental programs, there is still room for further improvement.

Despite the program's complexity, it has made and continues to make significant progress in cleaning up Superfund sites. Without Superfund, abandoned and uncontrolled releases of hazardous substances would continue unabated across the country. With construction completed at nearly 900 NPL sites and more than 7,000 emergency cleanups since its inception, the program is providing widespread benefits by reducing risks to human health and the environment and is providing opportunities for future beneficial land use of once derelict properties.

The success of the Superfund program is due in no small part to the Agency's continuing efforts to assess the program's strengths and weaknesses and to make appropriate modifications to improve cleanup approaches and administrative processes. The program has evolved almost continuously since its inception, adopting ideas proposed by Agency staff and external reviewers alike. In the beginning, the emphasis was simply on starting long term cleanups at as many sites as possible. Even then, the Agency recognized that it could not start all of them at once, and the "worst sites first" initiative was born. Soon after this, a renewed emphasis on "enforcement first" arose. Subsequently, in response to criticisms that the Agency was not removing enough sites from the NPL, the emphasis again shifted to stress completing construction at entire sites, i.e., finishing the long term cleanup, rather than simply focusing on the worst parts of the worst sites. Today, the Agency continues to stress enforcement first, as its rate of PRP participation demonstrates, while also addressing the worst sites first. The work of the priority panel for remedial funding and the extensive use of the removal program at NPL sites demonstrate this.

Readers familiar with prior evaluations of the Superfund program may recognize a number of the findings and recommendations in this report that have been considered previously or may be seen as variations on a theme. In addition, some of the best practices cited are approaches that have been tried, but perhaps not applied as broadly or

with as much energy as appears warranted, although some are new. This study has sought to examine a wide array of options suggested either by the data examined or by the people interviewed, and to present them as clearly as possible.

OSWER and the Regions have begun to implement a series of cost- and time-saving recommendations, a number of which were affirmed through the study team's independent analysis. Likewise, the Office of Administration and Resources Management has been working with Agency's senior managers to improve the management of all Agency grants and interagency agreements. The willingness of current senior-level Superfund program managers to engage with the Study Team, both at headquarters and in the Regions, clearly demonstrates a high level of interest in building on past successes and continuing to improve this already successful program.

The study team did find opportunities for greater efficiency in the use of Superfund's current resources. There are several tangible, near-term opportunities for stretching existing resources further, and there are other promising means to move toward more efficiently using the existing level of resources in the longer term. The study team also has identified a number of important program policy options and recommendations that could serve to reduce the future need for Superfund resources. The Study Team has identified recommendations as being either near team (significant progress or completion can be made within one year of the report) or long term. In some instances the Study Team identified options for Headquarters and the Regions to consider as they implement the program. Appendices A and B contain summary tables of all the Study Team's recommendations and options by Office and Region.

The recommendations of this report can make a significant impact on the Superfund program's current resource dilemma. If implemented aggressively, they will measurably increase the resources available for remedial action construction, perhaps by tens of millions of dollars annually. Together, the recommendations of this report can build on past successes and create a better, more efficient way to implement the Superfund program in the future. They are intended to improve upon a program that is working well, not one that is broken and needs fixing. These recommendations represent the best current thinking on what EPA can do with existing authorities and resources to efficiently implement the Superfund program, toward the goal of increasing the pace of site remediation. They have the potential to significantly reduce the current funding gap. Nevertheless, it is unrealistic to conclude that these recommendations, regardless of how aggressively they are implemented, will fully address the projected funding shortfall.

Outline of the Report

The report is broken into eight chapters and appendices that each contains a discussion and recommendations. The chapters are organized in the following order:

- Chapter 1 discusses the various program activities and resources by Agency office that receives Superfund dollars.
- Chapter 2 looks at those issues that cut across the entire program.

- Chapter 3 addresses the Superfund response program—the removal and remedial programs.
- Chapter 4 discusses the enforcement program.
- Chapter 5 looks at the role of research and technology as support for Superfund work.
- Chapter 6 discusses some overall issues associated with management and support of the Superfund program.
- Chapter 7 looks at ways to optimize the resources used by the Superfund program, considering special accounts, different types of contract mechanisms, and how the Agency works with other federal agencies to cleanup sites.
- Chapter 8 discusses the need for better performance measures for the program.
- Chapter 9 identifies the recommendations that will strengthen the program's accountability and will ultimately result in additional funds for long term cleanups.
- The appendices provide charts on Superfund resources and other supplemental information.